

REMARKS

Claims 11-30 are in the application.

Claims 11, 17, 18, 20, 25, 26, 27, and 30 have been amended for clarity.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "Version with Markings to Show Changes Made".

Specification

Applicants are submitting an Abstract of the Disclosure attached hereto.

Rejections under 35 U.S.C. § 112

Claims 11-30 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to distinctly claim the invention. Applicants respectfully traverse these rejections.

Claims 11, 17, 18, 20, 25-27, and 30 have been rejected because the claims are allegedly vague and indefinite due to the language "from about" and "to about" which imply a lower and upper limit and the claims fail to recite such a lower or upper limit. Applicants have now amended the claims for more clarity by reciting "at least about". Applicants submit that this rejection is now overcome.

Claim 25 has been rejected because the claim includes "preferably" clauses. Applicants have now amended Claim 25 to delete these clauses. Applicants submit that this rejection is now overcome.

Rejection under 35 U.S.C. § 103

Claims 11-30 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Meixner et al., WO 98/17764, in view of Boeckh et al., U.S. Patent No. 6,025,322. Applicants respectfully traverse this rejection. Meixner et al. teach detergent or cleaning compositions comprising crosslinked nitrogenous compounds that are soluble and dispersible in water and are obtainable by crosslinking of compounds containing at least three NH groups with at least bifunctional crosslinkers that react with the NH groups. The crosslinked nitrogenous compounds are incorporated in the detergent or cleaning compositions to act as soil release agents and/or enzyme stabilizers. Meixner et al. further teach that its compositions can optionally further comprise color transfer inhibitors such as polymers of vinylpyrrolidone vinylimidazole, vinyloxazolidone, or 4-vinylpyridine N-oxide having molecular weights of from 15,000 to 100,000. However, Meixner et al. do not teach or suggest, as the Office Action partly admits, a composition comprising at least

about 0.1% of a transition metal-comprising dye protection system comprising one or more oligomers formed from the reaction of 1 part of an epihalohydrin and from 0.5 to 2 parts of a substituted or unsubstituted imidazole, as required by the present claims.

Boeckh et al. teach detergent compositions comprising polycationic condensates obtainable by condensing, e.g., piperazine and/or imidazole with epihalohydrin in a molar ratio of from 1:0.8 to 1:1.1. These polycationic condensates are incorporated in the detergent compositions for suppressing release and transfer of dyes to other textiles during the washing and after-treatment of colored fabrics. Boeckh et al. teach that its compositions can optionally further comprise other conventional ingredients, such as soil release polymers (*see col. 4, line 46; Examples II and V*). However, Boeckh et al. do not teach or suggest compositions that comprise a fabric enhancement system comprising one or more modified polyamine compounds, as required by the present claims.

The Office Action asserts that it would have been obvious to one of ordinary skill in the art to have used polycationic condensates in the compositions of Meixner et al. because Boeckh et al. teach the dye transfer inhibition properties of polycationic condensates and Meixner et al. teach the use of color transfer inhibitors in general.

Applicants respectfully disagree with this assertion and traverse the present rejection. The present invention is based upon the discovery that certain modified polyamine compounds that have been previously utilized to provide various fabric benefits also tend to chelate heavy metals, such as copper, which are components of certain conventional fabric dyes. As a result, these modified polyamine compounds can have a detrimental effect on fabrics containing certain transition-metal containing fabric dyes. Applicants have unexpectedly found that certain oligomers formed from the reaction of 1 part of an epihalohydrin and from 0.5 to 2 parts of an imidazole tend to abate the pejorative effects of heavy metal ion chelation by the modified polyamine compounds on certain transition-metal containing fabric dyes. Neither Meixner et al. nor Boeckh et al. recognize this potential problem with modified polyamine compounds, as presently claimed, and therefore do not teach or suggest the combination of modified polyamine compounds and oligomers formed from the reaction of 1 part of an epihalohydrin and from 0.5 to 2 parts of an imidazole, to provide fabric care benefits without the potential drawback of heavy metal ion chelation of certain fabric dyes by the modified polyamine compounds, as presently claimed. Since neither Meixner et al. nor Boeckh et al. teach or suggest compositions comprising this combination of components to provide fabric care benefits without the negative effects of heavy metal ion chelation on certain fabric dyes, Applicants submit that Claims 11-30 are unobvious and patentable over Meixner et al. in view of Boeckh et al. under 35 U.S.C. § 103(a).

Furthermore, Claims 17, 18, 20, and 26 require an oligomer formed from the reaction of 1 part of epichlorohydrin and at least about 1.4 parts of imidazole, which is especially unobvious over Meixner et al. in view of Boeckh et al. Boeckh et al. disclose polycationic condensates obtainable by condensing, e.g., piperazine and/or imidazole with epichlorohydrin in a molar ratio of from 1:0.8 to 1:1.1 (i.e. 1 part of epichlorohydrin and from 0.9 to 1.25 parts of piperazine and/or imidazole); however, Boeckh et al. do not teach or suggest polycationic condensates obtained by reacting 1 part of epichlorohydrin and at least about 1.4 parts of imidazole, as required by Claims 17, 18, 20, and 26. As such, Applicants submit that Claims 17, 18, 20, and 26 are especially unobvious and patentable over Meixner et al. in view of Boeckh et al. under 35 U.S.C. § 103(a).

Double Patenting

Claims 11-30 have been rejected under the doctrine of obviousness-type double patenting as being unpatentable over Claims 1-31 of copending Application No. 09/655,121 and Claims 31 and 33-50 of copending Application No. 09/890,676. Once patentable subject matter has otherwise been identified, Applicants will consider submitting a terminal disclaimer(s) to obviate these rejections.

CONCLUSION

In view of the foregoing amendments and accompanying remarks, reconsideration of the application and allowance of all claims are respectfully requested.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE**IN THE SPECIFICATION**

An Abstract of the Disclosure has been added.

IN THE CLAIMS

Claims 11, 17, 18, 20, 25, 26, 27, and 30 have been amended as follows:

11. (Amended) A fabric care composition comprising:

- a) [from] at least about 0.01% by weight, of a fabric enhancement system, said fabric enhancement system comprising one or more modified polyamine compounds, said modified polyamine compounds are selected from:
 - i) $(PA)_w(T)_x$;
 - ii) $(PA)_w(L)_z$;
 - iii) $[(PA)_w(T)_x]_y[L]_z$; and
 - iv) mixtures thereof;wherein PA is a grafted or non-grafted, modified or unmodified polyamine backbone unit, T is an amide-forming polycarboxylic acid crosslinking unit, and L is a non-amide forming crosslinking unit; provided that for compounds of type (i) and (iii) the indices w and x have values such that the ratio of w to x is from 0.8 : 1 to 1.5 : 1; for compounds of type (ii) the indices w and z have values such that said modified polyamine compound comprises from about 0.05 to about 2 parts by weight of said L unit; for compounds of type (iii) the indices y and z have values such that said modified polyamine compound comprises from about 0.05 to about 2 parts by weight of said L unit;
- b) [from] at least about 0.01% by weight, of a transition metal-comprising dye protection system, said dye protection system comprising one or more oligomers formed from the reaction of:
 - i) 1 part by weight of an epihalohydrin; and
 - ii) from 0.5 to 2 parts by weight of a substituted or unsubstituted imidazole; and
- c) the balance carriers and adjunct ingredients.

17. (Amended) A composition according to Claim 16 wherein said oligomer is formed from the reaction of:

- i) 1 part by weight of epichlorohydrin; and
- ii) [from] at least about 1.4 parts by weight of a substituted or unsubstituted imidazole.

18. (Amended) A composition according to Claim 17 wherein said oligomer is formed from the reaction of:

- i) 1 part by weight of epichlorohydrin; and
- ii) [from] at least about 1.4 parts by weight of imidazole.

20. (Amended) A composition according to Claim 11 wherein said oligomer is formed from the reaction of:

- i) 1 part by weight of epichlorohydrin; and
- ii) [from] at least about 1.4 parts by weight of imidazole
wherein said oligomer has an average molecular weight of from about 1800 to about 2200 daltons.

25. (Amended) A fabric care composition comprising:

- a) [from] at least about 0.01% by weight, of a fabric enhancement system, said fabric enhancement system comprising one or more modified polyamine compounds, said modified polyamine compounds are selected from:

- i) $(PA)_w(T)_x$;
- ii) $(PA)_w(L)_z$;
- iii) $[(PA)_w(T)_x]^y[L]_z$; and
- iv) mixtures thereof;

wherein PA is a grafted or non-grafted, modified or unmodified polyamine backbone unit, T is an amide-forming polycarboxylic acid crosslinking unit, and L is a non-amide forming crosslinking unit; provided that for compounds of type (i) and (iii) the indices w and x have values such that the ratio of w to x is from 0.8 : 1 to 1.5 : 1; for compounds of type (ii) the indices w and z have values such that said modified polyamine compound comprises from about 0.05 to about 2 parts by weight of said L unit; for compounds of type (iii) the indices y and z have values such that said modified polyamine compound comprises from about 0.05 to about 2 parts by weight of said L unit;

- b) [from] at least about 0.01% by weight, of a transition metal-comprising dye protection system, said dye protection system comprising one or more oligomers formed from the reaction of:
 - i) 1 part by weight of an epihalohydrin; and
 - ii) from 0.5 to 2 parts by weight of a substituted or unsubstituted imidazole
- c) optionally [from] at least about 1%, [preferably from about 10%, more preferably from about 20% to about 80%, preferably to about 60%, more preferably to about 45%] by weight, of a fabric softening active;
- d) optionally less than about 15% by weight, of a principal solvent [, preferably said principal solvent has a ClogP of from about 0.15 to about 1];
- e) optionally from about 0.001% to about 90% by weight, of one or more dye fixing agents;
- f) optionally from about 0.01% to about 50% by weight, of one or more cellulose reactive dye fixing agents;
- g) optionally from about 0.01% to about 15% by weight, of a chlorine scavenger;
- h) optionally from about 0.005% to about 1% by weight, of one or more crystal growth inhibitors;
- i) optionally from about 0.01% to about 20% by weight, of a fabric abrasion reducing polymer;
- j) optionally from about 1% to about 12% by weight, of one or more liquid carriers;
- k) optionally from about 0.001% to about 1% by weight, of an enzyme;
- l) optionally from about 0.01% to about 8% by weight, of a polyolefin emulsion or suspension;
- m) optionally from about 0.01% to about 0.2% by weight, of a stabilizer;
- n) optionally from about 1% to about 80% by weight, of a fabric softening active;
- o) optionally from about 0.5% to about 10% by weight, of a cationic nitrogen compound; and
- p) the balance carrier and adjunct ingredients.

26. (Amended) A composition according to Claim 25 wherein said dye protection system comprises one or more oligomers formed from the reaction of:

- i) 1 part by weight of epichlorohydrin; and

- ii) [from] at least about 1.4 parts by weight of imidazol .

27. (Amended) A laundry detergent composition comprising:

- a) [from] at least about 0.01% by weight, of a deterativ surfactant selected from the group consisting of anionic, cationic, nonionic, zwitterionic, ampholytic surfactants, and mixtures thereof;
- b) [from] at least about 0.01% by weight, of a fabric enhancement system, said fabric enhancement system comprising one or more modified polyamine compounds, said modified polyamine compounds are selected from:
 - i) $(PA)_w(T)_x$;
 - ii) $(PA)_w(L)_z$;
 - iii) $[(PA)_w(T)_x]_y[L]_z$; and
 - iv) mixtures thereof;
 wherein PA is a grafted or non-grafted, modified or unmodified polyamine backbone unit, T is an amide-forming polycarboxylic acid crosslinking unit, and L is a non-amide forming crosslinking unit; provided that for compounds of type (i) and (iii) the indices w and x have values such that the ratio of w to x is from 0.8 : 1 to 1.5 : 1; for compounds of type (ii) the indices w and z have values such that said modified polyamine compound comprises from about 0.05 to about 2 parts by weight of said L unit; for compounds of type (iii) the indices y and z have values such that said modified polyamine compound comprises from about 0.05 to about 2 parts by weight of said L unit;
- c) [from] at least about 0.01% by weight, of a transition metal-comprising dye protection system, said dye protection system comprising one or more oligomers formed from the reaction of:
 - i) 1 part by weight of an epihalohydrin; and
 - ii) from 0.5 to 2 parts by weight of a substituted or unsubstituted imidazole; and
- d) the balance carriers and adjunct ingredients.

30. (Amended) A method for preventing fading of dye from fabric comprising the step of contacting fabric with an aqueous solution containing a least 50 ppm of a laundry detergent composition which comprises:

- a) [from] at least about 0.01% by weight, of a detergents surfactant selected from the group consisting of anionic, cationic, nonionic, zwitterionic, ampholytic surfactants, and mixtures thereof;
- b) [from] at least about 0.01% by weight, of a fabric enhancement system, said fabric enhancement system comprising one or more modified polyamine compounds, said modified polyamine compounds are selected from:
 - i) $(PA)_w(T)_x$;
 - ii) $(PA)_w(L)_z$;
 - iii) $[(PA)_w(T)_x]_y[L]_z$; and
 - iv) mixtures thereof;wherein PA is a grafted or non-grafted, modified or unmodified polyamine backbone unit, T is an amide-forming polycarboxylic acid crosslinking unit, and L is a non-amide forming crosslinking unit; provided that for compounds of type (i) and (iii) the indices w and x have values such that the ratio of w to x is from 0.8 : 1 to 1.5 : 1; for compounds of type (ii) the indices w and z have values such that said modified polyamine compound comprises from about 0.05 to about 2 parts by weight of said L unit; for compounds of type (iii) the indices y and z have values such that said modified polyamine compound comprises from about 0.05 to about 2 parts by weight of said L unit;
- c) [from] at least about 0.01% by weight, of a transition metal-comprising dye protection system, said dye protection system comprising one or more oligomers formed from the reaction of:
 - i) 1 part by weight of an epihalohydrin; and
 - ii) from 0.5 to 2 parts by weight of a substituted or unsubstituted imidazole; and
- d) the balance carriers and adjunct ingredients, said adjunct ingredients are selected from the group consisting of builders, optical brighteners, soil release polymers, dye transfer agents, dispersents, enzymes, suds suppressers, dyes, perfumes, colorants, filler salts, hydrotropes, photoactivators, fluorescers, fabric conditioners, hydrolyzable surfactants, preservatives, anti-oxidants, chelants, stabilizers, anti-shrinkage agents, anti-wrinkle agents, germicides, fungicides, anti corrosion agents, and mixtures thereof.